CLAIMS

1. A supporting installation (1) for supporting a number of turns, extending helically one upon the other in a stack, of an at least partly self-supporting conveyor belt (2)

comprising at least one bearing element (9) for supporting the conveyor belt (2), and

a section (4) for supporting the bearing element (9),

said section (4) being extended in an endless loop along which the bearing element (9) is movable,

c h a r a c t e r i s e d in that

the at least one bearing element (9) is a roller bearing element (10) comprising a plurality of first and second roller means (11, 12).

2. A supporting installation (1) as claimed in claim 1, wherein the first roller means (11) have axes (R1) which are oriented in a first direction parallel with a plane made up by two mutually orthogonal axes which are perpendicular to the longitudinal direction (L) of the section (4).

3. A supporting installation (1) as claimed in claims 1 and 2, wherein the second roller means (12) have axes (R2) which are oriented in a second direction parallel with a plane made up by two mutually orthogonal axes which are perpendicular to the longitudinal direction (L) of the section (4).

4. A supporting installation (1) as claimed in any one of the preceding claims, wherein the first roller means (11) are adapted to receive vertical forces.

5. A supporting installation (1) as claimed in any one of the preceding claims, wherein the second roller means (12) are adapted to receive radially directed forces.

6. A supporting installation (1) as claimed in any one of the preceding claims, wherein the first roller means (11) have axes (R1) which are oriented in the transverse direction of the section (4).

7. A supporting installation (1) as claimed in any one of the preceding claims, wherein the second roller means (12) have axes (R2) which are oriented perpendicular both to the axes (R1) of the first roller means (11) and to the longitudinal direction (L) of the section (4).

8. A supporting installation (1) as claimed in any one of the preceding claims, wherein the first and the second roller means (11, 12) are alternately arranged in the longitudinal direction (L) of the bearing element (9).

9. A supporting installation (1) as claimed in any one of the preceding claims, wherein the roller means (11, 12) are spaced from each other.

10. A supporting installation (1) as claimed in any one of the preceding claims, wherein neighbouring roller means (11, 12) are interconnected to form a bearing element (9) which is continuously extended in its longitudinal direction.

11. A supporting installation (1) as claimed in claim 10, wherein the interconnected roller means (11, 12) form an endless bearing element (9).

12. A supporting installation (1) as claimed in any one of the preceding claims, wherein the diameter (D1, D2) of the ones of the first and second roller means (11, 12) is greater than the width (B1, B2) of the others of the first and second roller means (11, 12).

13. A supporting installation (1) as claimed in any one of the preceding claims, wherein the geometric centre (M) of the ones of the first and second roller means (11, 12) is arranged essentially along the rotational axis (R1, R2) of the others of the first and second roller means (11, 12), seen perpendicular to a plane made up by

two mutually orthogonal axes which are perpendicular to the longitudinal direction (L) of the bearing element (9).

14. A supporting installation (1) as claimed in any one of the preceding claims, wherein the roller means (11, 12) of the bearing element (9) are relatively movable in the longitudinal direction (L) of the section (4).

15. A supporting installation (1) as claimed in claim 14, wherein said roller means (11, 12) are relatively movable under spring action.

16. A supporting installation (1) as claimed in any one of the preceding claims, comprising at least one drive means (14) which is drivable by a motor and adapted to drive the belt (2).

17. A supporting installation (1) as claimed in claim 16, wherein the drive means (14) is a chain (15).

18. A supporting installation (1) as claimed in any one of the preceding claims, comprising a carrier means (16) which is extended along said section (4) and adapted to support the belt (2), said bearing element (9) being arranged between said carrier means (16) and said section (4).

19. A supporting installation (1) as claimed in claim 18, wherein the carrier means (16) is a chain (15).

20. A supporting installation (1) in the case where claim 18 or 19 refers back to claim 15 or 16, wherein the carrier means (16) is formed by the drive means (14).

21. A supporting installation (1) as claimed in any one of the preceding claims, comprising two chains (15) each extended along a section (4) and adapted to drive and support the belt (2) at a longitudinal side edge (6) each of the belt, wherein a bearing element (9) in the form of a roller bearing element (10) is arranged between the associated chain (15) and section (4).

22. A supporting installation (1) as claimed in any one of the preceding claims, wherein the section (4) com-

prises a bearing seat (8) extended along the section and being L shaped in cross-section and adapted to receive said bearing element (9).

23. A bearing element (9) for a supporting installation (1), c h a r a c t e r i s e d by

first roller means and second roller means (11, 12),

said first and second roller means (11, 12) being alternately arranged in succession to form an elongate bearing element (9),

the rotational axes (R1, R2) of the first and second roller means (11, 12) being mutually orthogonal and also perpendicular to the longitudinal direction (L) of the bearing element (9), and

two neighbouring roller means (11, 12) being interconnected by means of a connecting element (19),

which holds said neighbouring roller means (11, 12) spaced from each other and

which allows relative mobility between the roller means (11, 12) in the longitudinal direction (L) of the bearing element (9).

24. A bearing element (9) as claimed in claim 23, wherein said mobility is provided by means of elongate holes (31) which are formed in the respective connecting elements (19) and extend in the longitudinal direction (L) of the bearing element (9) and which encompass a web (11) of one of two neighbouring roller means (11, 12).

25. A bearing element (9) as claimed in claim 23 or 24, wherein each connecting element (19) is arranged so as to allow mutual resilience of the roller means (11, 12).

26. A bearing element (9) as claimed in any one of claims 23-25, wherein the diameter (D1, D2) of the ones of the first and second roller means (11, 12) is greater than the width (B1, B2) of the others of the first and second roller means (11, 12).

27. A bearing element (9) as claimed in any one of claims 23-26, wherein each roller means (11, 12) comprises a web (18).

28. A bearing element (9) as claimed in any one of claims 23-27, in which said connecting element (19) comprises an U-shaped piece (20) with a hole (21) formed in each leg (22, 23) of the U-shaped piece (20), which holes (21) are aligned with each other, the web (24) of the U-shaped piece (20) grasping a web (18) of one of the first and the second roller means (11, 12) and said holes (21) receiving a web (18) of the other of the first and the second roller means (11, 12).

29. A bearing element (9) as claimed in claim 28, wherein a resilient lip (26) is arranged on the edge (25) of the hole in one of the legs (22, 23) of the U-shaped piece (20), said lip (26) being extended towards the hole (21) in the other of the legs (22, 23) of the U-shaped piece (20).